

REMARKS

Summary of the Invention

The invention features a method of assaying a test compound for an effect on hypertension parameters by administering a test compound to a Dahl Salt-sensitive^{HSD} rat whose genome comprises a functional variant $\alpha 1$ Na,K-ATPase hypertension susceptibility gene, and determining whether the test compound affects hypertension parameters of the Dahl Salt-sensitive^{HSD} rat relative to a rat that has a wild type $\alpha 1$ Na,K-ATPase gene.

Summary of the Office Action

Claims 1-5 are pending and are rejected under 35 U.S.C. § 112, first paragraph. Claims 1-5 are also rejected under 35 U.S.C. § 103 over Medvedev et al. (J. Auton. Nerv. Sys. 72:170-176, 1998; hereinafter “Medvedev”), Vesely (U.S. Patent No. 5,691,310; hereinafter “Vesely”), or Somova et al. (Methods Find. Exp. Clin. Pharmacol. 21:412-415, 1999; hereinafter “Somova”), in combination with Herrera et al. (J. Clin. Invest. 102:1102-1111; hereinafter “Herrera”). The Examiner also objects to claims 2 and 3 for informalities, and to the specification because the amendment filed with the reply to Office Action submitted on January 3, 2003 introduces new matter. By this reply, Applicant amends claim 1, cancels claims 2-4, and addresses each of the Examiner’s objections and rejections below.

Support for the Amendment

Support for the amendment to claim 1 is found in the specification on page 2, lines 8-10.

Informalities

The Examiner objects to claims 2 and 3 because a period is missing at the end of each claim. Claims 2 and 3 have been cancelled. Accordingly, this objection may be withdrawn.

The Examiner also objects to the amendment made to the specification in the reply to Office Action filed on January 3, 2003 which deleted the list of cited references found on page 23, line 25, through page 28, line 5, of the specification. In response, Applicant withdraws the amendment to the specification. This objection may now be withdrawn.

The Examiner also objects to the incorporation of nucleic and amino sequences from Shull et al. (Biochemistry 25:8125, 1987) and Herrera et al. (Science 249:1023-1026, 1990), as well as the sequence listing filed with the reply to Office Action on January 3, 2003. The Examiner states that “[t]he incorporation of sequences from the cited references is new matter because the incorporation by reference was improper.” (Office Action, p. 2.) Applicant herewith withdraws the sequence listing filed on January 3, 2003 and the request to incorporate the nucleic and amino acid sequences into the specification by reference. Accordingly, this objection may now be withdrawn.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 1-5 are rejected under 35 U.S.C. § 112, first paragraph, for lack of written description and lack of enablement. Each of these rejections is addressed separately below.

Written Description

Claims 1-5 stand rejected under 35 U.S.C. § 112, first paragraph, for lack of written description. Specifically, the Examiner states:

The claimed invention encompasses a functional variant $\alpha 1$ Na,K-ATPase hypertension susceptibility gene...The specification displays data to support the $\alpha 1$ Na,K-ATPase gene as a susceptibility gene in a salt-sensitive hypertension Dahl S rat...

The as-filed specification does not provide an adequate written description of a representative number of species of non-human mammals whose genome comprises a functionally variant $\alpha 1$ Na,K-ATPase hypertension susceptibility gene.
(Office Action, pp. 5 and 7)

In response, claim 1 has been amended to recite the use of a Dahl Salt-sensitive^{HSD} rat whose genome comprises a functional variant $\alpha 1$ Na,K-ATPase hypertension susceptibility gene, and therefore, the claim no longer includes any non-human mammal. As was discussed in the previous reply to Office Action filed on January 3, 2003, the specification describes the Dahl S rat, whose genome comprises a functional variant $\alpha 1$ Na,K-ATPase hypertension susceptibility gene (see, e.g., page 3, line 22, through page 4, line 15). Thus, by describing both the functional variant $\alpha 1$ Na,K-ATPase hypertension

susceptibility gene and the use of a Dahl Salt-sensitive^{HSD} rat whose genome comprises this gene, the specification clearly describes the presently claimed invention and places the skilled artisan in possession thereof. Accordingly, Applicant respectfully requests that the rejection of claims 1-5 under 35 U.S.C. § 112, first paragraph, for lack of written description, be withdrawn.

Enablement

The Examiner also rejects claims 1-5 under 35 U.S.C. § 112, first paragraph, for lack of enablement. The Examiner states:

...the as-filed specification provides sufficient guidance for one skilled in the art to use a Dahl Salt-sensitive^{HSD} rat in the claimed methods. However, the specification does not provide sufficient guidance for making or using a genus of non-human mammals whose genome comprises a $\alpha 1$ Na,K-ATPase hypertension susceptibility gene in the claimed methods. (Office Action, pp. 13-14.)

As is discussed above, claim 1 now recites the use of a Dahl Salt-sensitive^{HSD} rat in the claimed method. As is acknowledged by the Examiner, this claim is sufficiently enabled (Office Action, p. 10). Therefore, Applicant respectfully requests that the rejection of claims 1-5 under 35 U.S.C. § 112, first paragraph, for lack of enablement be withdrawn.

Rejections under 35 U.S.C. § 103

The Examiner rejects claims 1-5 under 35 U.S.C. § 103 over Medvedev, Vesely, or Somova in combination with Herrera. The Examiner states:

The Declaration of Dr. Ruiz-Opazo under 37 C.F.R. 1.132 filed 1/7/03 is insufficient to overcome the rejection of claim 1 based upon 103(a) rejection as set forth in the last Office action because: the declaration was not signed by Dr. Ruiz-Opazo. (Office Action, p. 24.)

In response, Applicant directs the Examiner's attention to the executed Declaration of Dr. Nelson Ruiz-Opazo (under *In re Katz*), which states that Dr. Ruiz-Opazo and Dr. Herrera (who has been added as an inventor; see the Petition to Correct Inventorship under 37 C.F.R. § 1.48(a), filed herewith) are the only inventors of the work described in Herrera et al. (Science 249:1023-1026, 1990), and that, with the exception of Dr. Herrera, the other authors worked under Dr. Ruiz-Opazo's direction and control and did not contribute to the claimed inventive concepts. Accordingly, Applicant respectfully requests that the rejection of claims 1-5 under 35 U.S.C. § 103 be withdrawn.

CONCLUSION

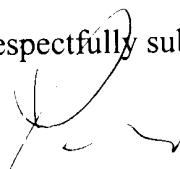
Applicant submits that the claims are now in condition for allowance, and such action is respectfully requested.

Enclosed is a petition to extend the period for replying for two months, to and including August 21, 2003.

If there are any charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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